Claims

1. Monoclonal antibody reacting with a surface antigen present on fetal red blood cells including their nucleated precursor cells, but not with surface antigens on adult erythroid cells.

2. Antibody according to claim 1, characterized in that it reacts with most or all fetal erythroid cells, which express the CD71 antigen but are negative for CD45 antigen expression.

3. Antibody according to claim 1 or 2, characterized in that it reacts with fetal erythroid cells but not with the CD71 antigen.

4. Hybridoma cell producing monoclonal antibodies according to one of the preceding claims.

5. Hybridoma cell as deposited under accession number DSM ACC 2666 on July 13, 2004 at the Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH in Braunschweig, Germany.

6. Hybridoma cell according to claims 4 and 5.

7. Antibody expressed by the hybridoma cell according to one of claims 4 to 6.

8. Antibody according to claim 7 and one of claims 1 to 3.

9. Surface antigen on fetal red blood cells recognized by a monoclonal antibody as characterized in one of claims 1 to 3 and 7 to 8.

10. Antibody characterized in that it recognizes or

binds specifically to a surface antigen according to claim 9.

11. Use of a monoclonal antibody according to one of claims 1 to 3, 7, 8 or 10 for the detection and identification of fetal cells in a sample.

12. Use according to the preceding claim for the detection and identification of fetal cells in a sample of maternal blood.

13. Method for detection or identification of fetal cells in a sample, characterized by labeling said fetal cells by an antibody according to one of claims 1 to 3, 7, 8 or 10.

14. Method according to the preceding claim, characterized in that the sample is maternal blood or a sample of maternal blood.

15. Use of a method according to claims 13 or 14 for the detection of chromosomal and/or genetic aberrations, defects and/or variants in the fetal cells detected and identified by a method according to claim 13 to 14, characterized in that said fetal cells are subsequent to the detection and identification analyzed for a chromosomal and/or genetic aberration, defects and/or variant.

16. Use or method according to one of claims 11 to 15, characterized in that cells binding the monoclonal antibody are separated by flow cytometry, solid phase separation, immunomagnetic bead separation, panning on plastic surfaces, or the like.